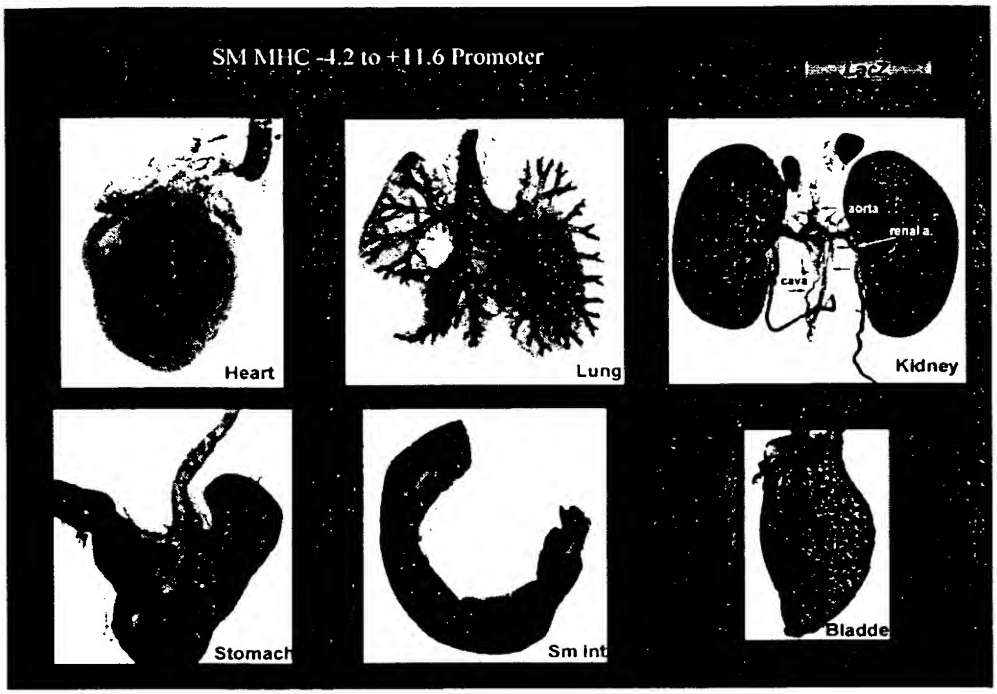


Figure 1: Expression of the rat SM MHC –4.2 to +11.6 LacZ transgene in adult mouse SMC tissues. Extremely high expression was observed in virtually all SMC tissues with no expression in non-SMC (see histological evaluations in Fig. 3)

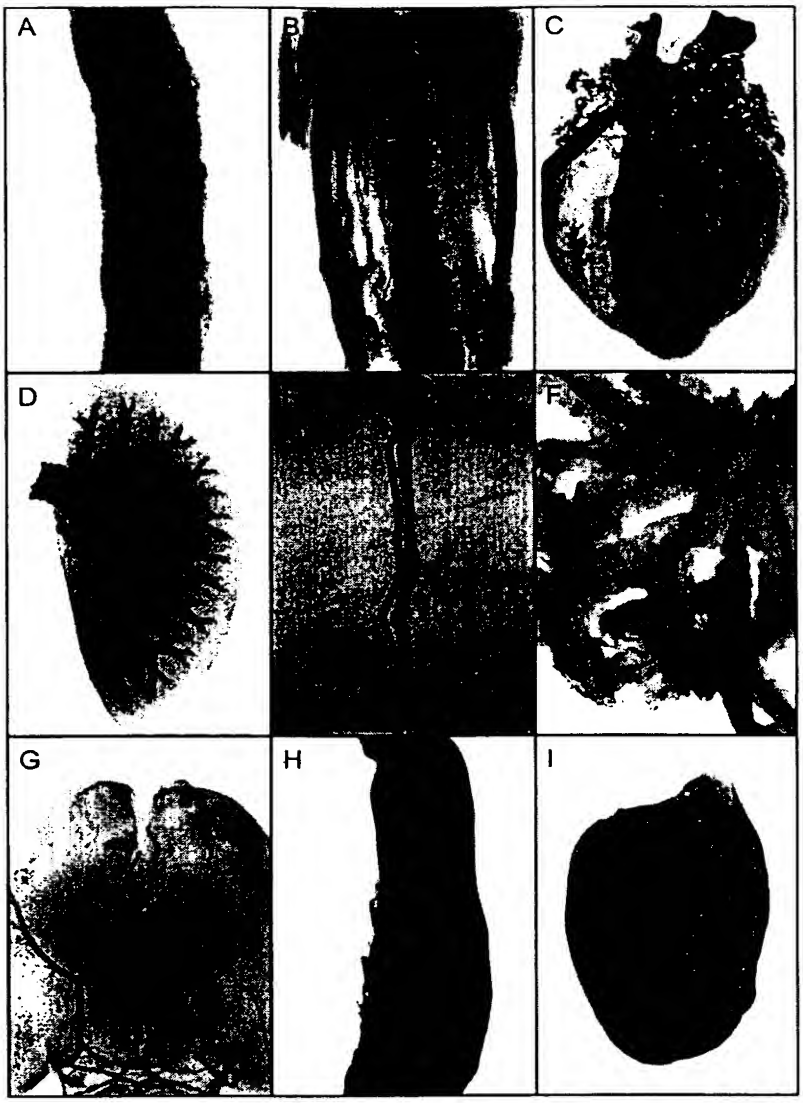


Figure 2

Histological Assessment of SM MHC- Cre Induced Gene Activation

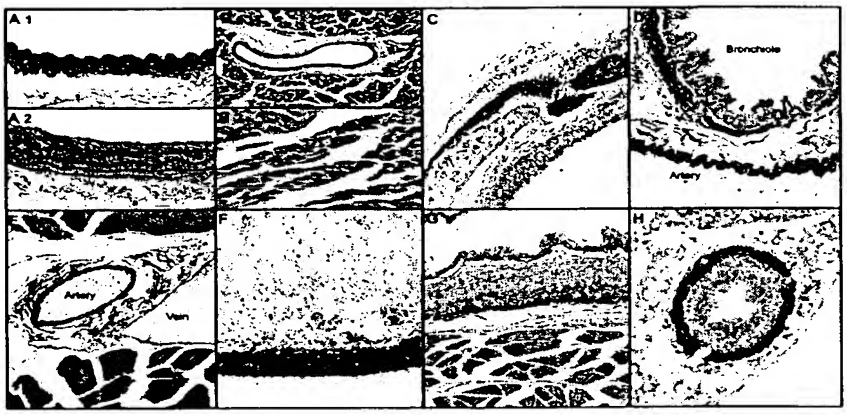


Figure 3

-4.2/+5.3::+7.5/+9 *LacZ*

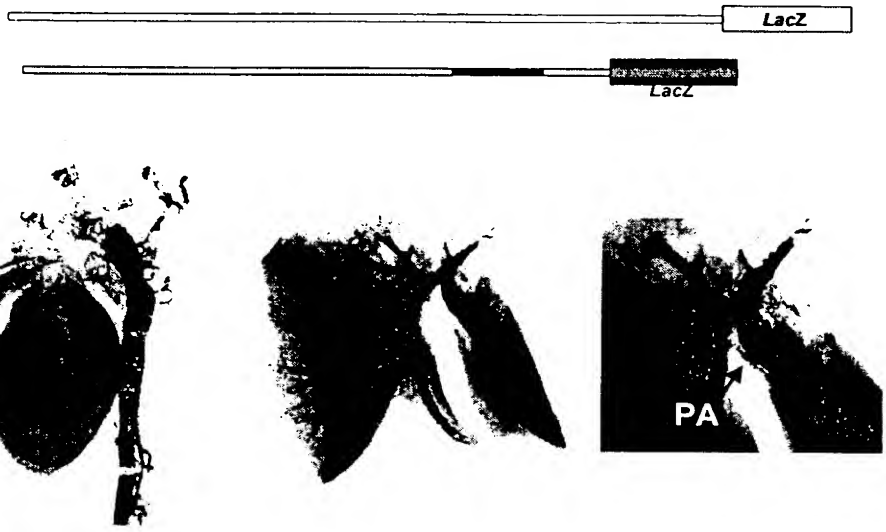


Figure 4

Expression of the -4.2 to +5.3/+7.5 to +9.0 SM MHC LacZ Transgene in Pulmonary Arteries/Arterioles of Adult Mice

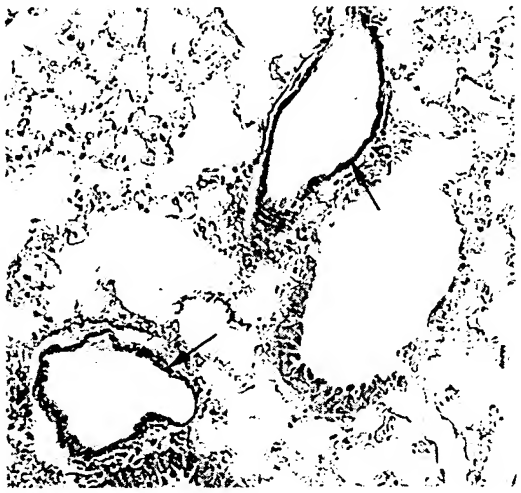


Figure 5

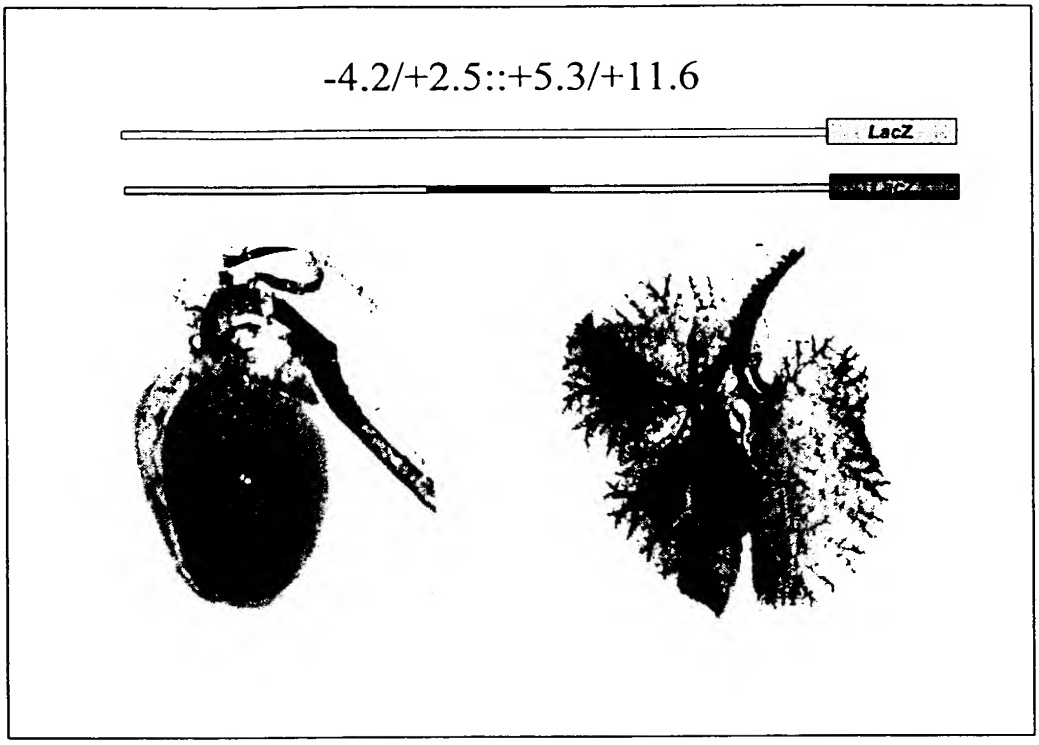


Figure 6

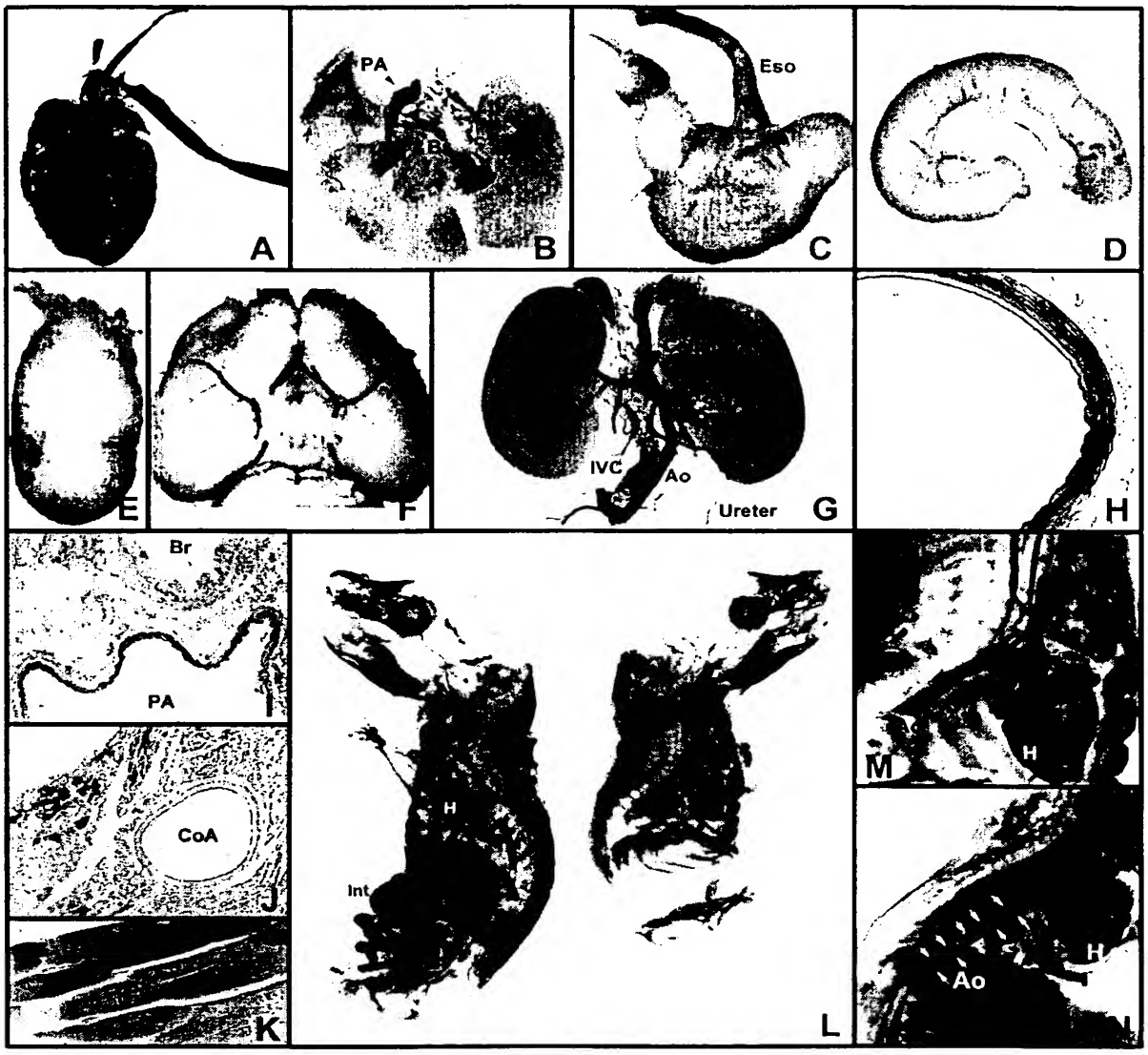


Figure 7

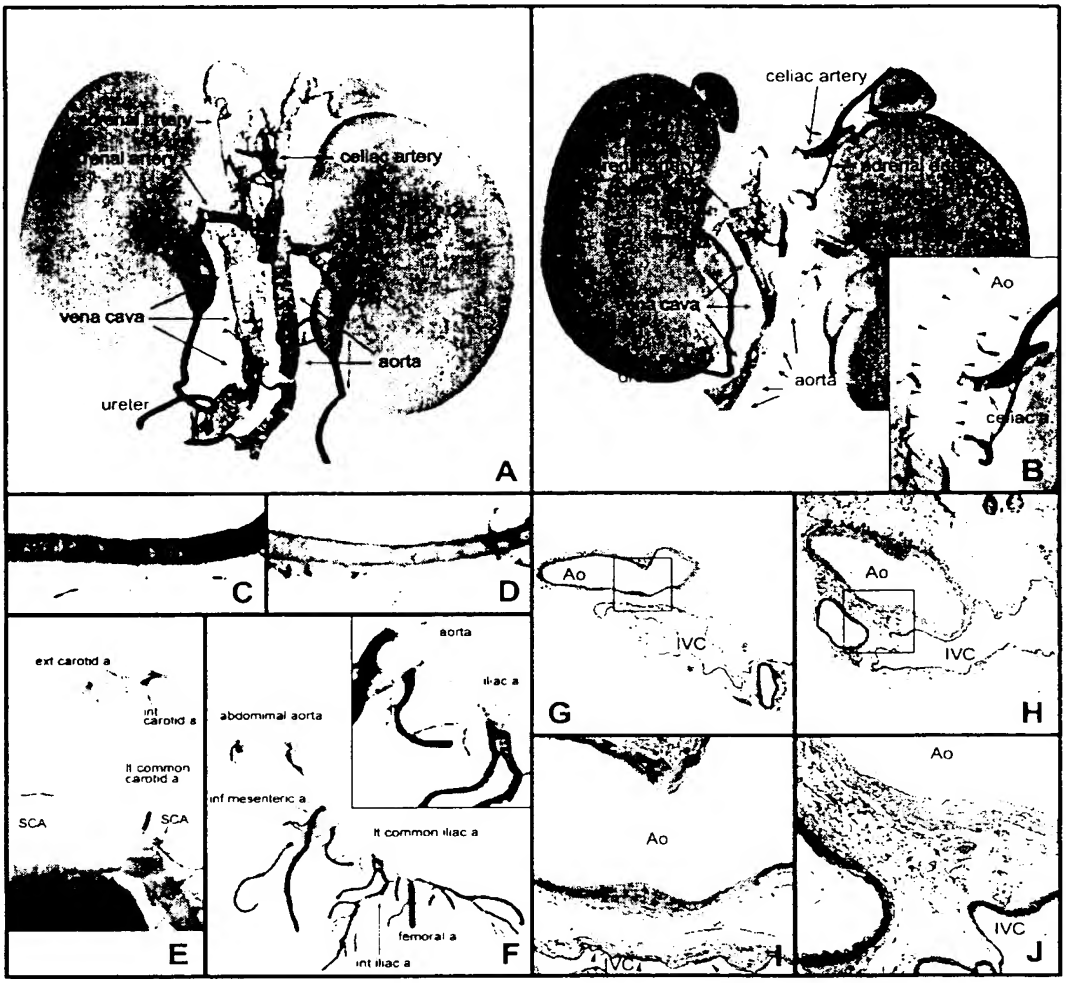
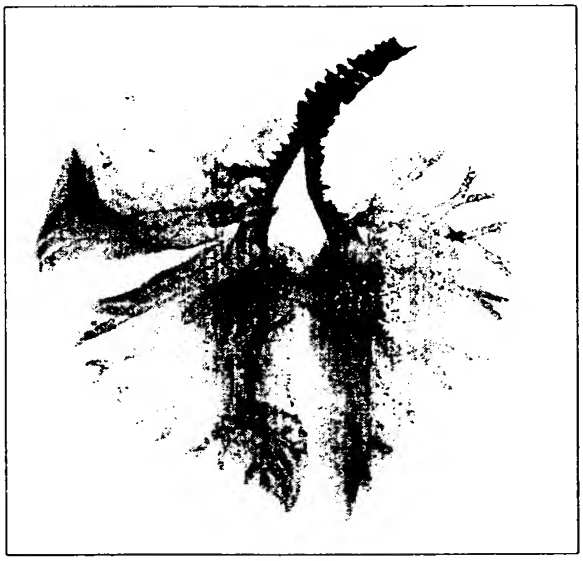
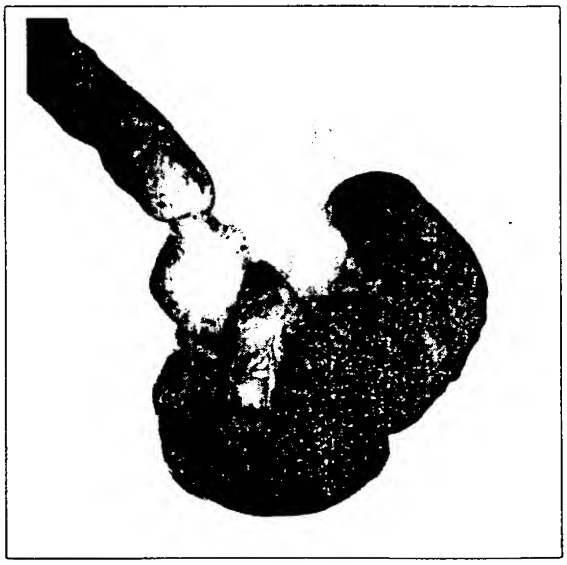


Figure. 8 Large artery-specific silencing of the reporter gene in intronic CArG mutant mice

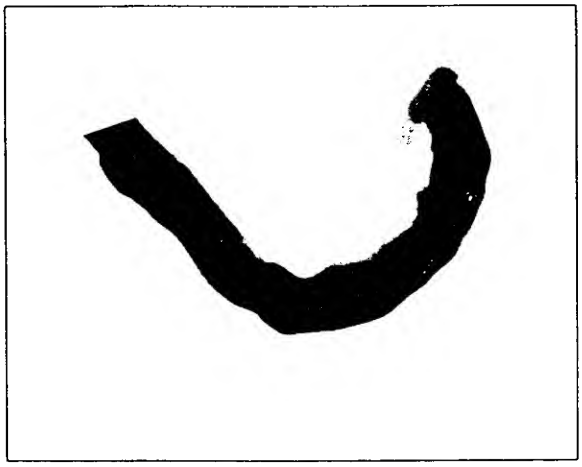
Fig. 9. Expression of the Human MHC-5.1/13.5-LacZ transgene in Adult (5-6 weeks old) Mouse Tissues Whole tissues were processed and stained for lacZ expression as previously described (Madsen et al. *Circ. Res.* 82:908-917, 1998).



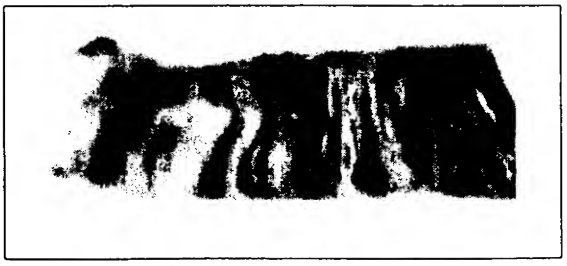
Conducting airways and lungs.



Stomach, small intestine, and esophagous.

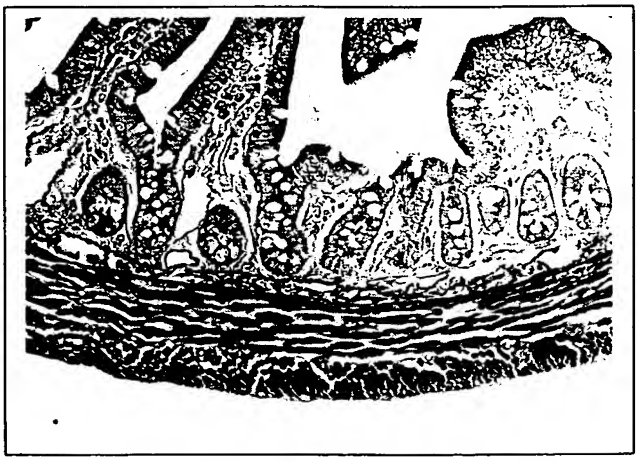


Colon.

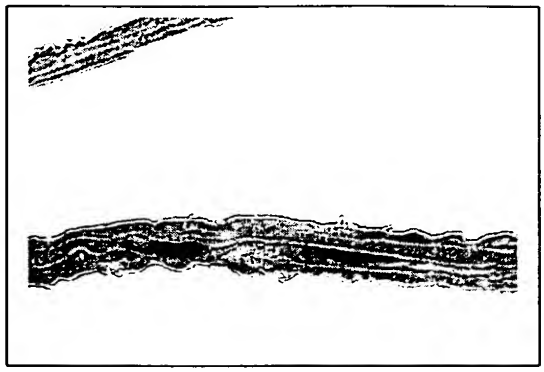


Iliac Artery.

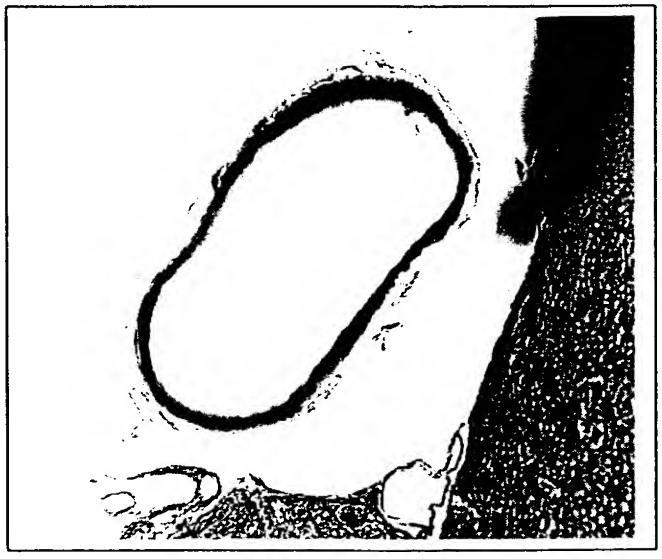
Figure 10: Histological Evaluation of Expression of the Human MHC-5.1/13.5-LacZ transgene in Adult (5-6 weeks old) Mouse Tissues Tissues were processed and stained for lacZ expression as previously described (Madsen et al. *Circ. Res.* 82:908-917, 1998).



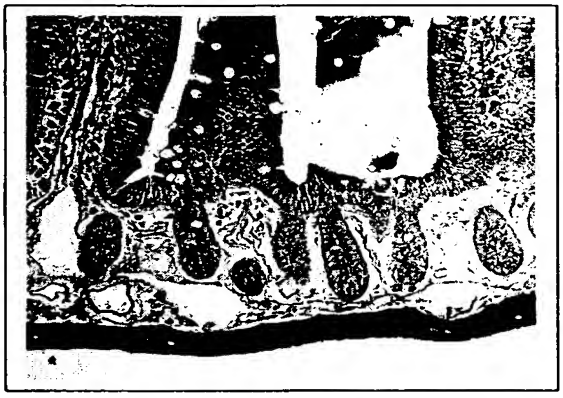
Ileum



Abdominal aorta



Small artery (circle of Willis)



Colon

SM MHC 5'-flanking sequence

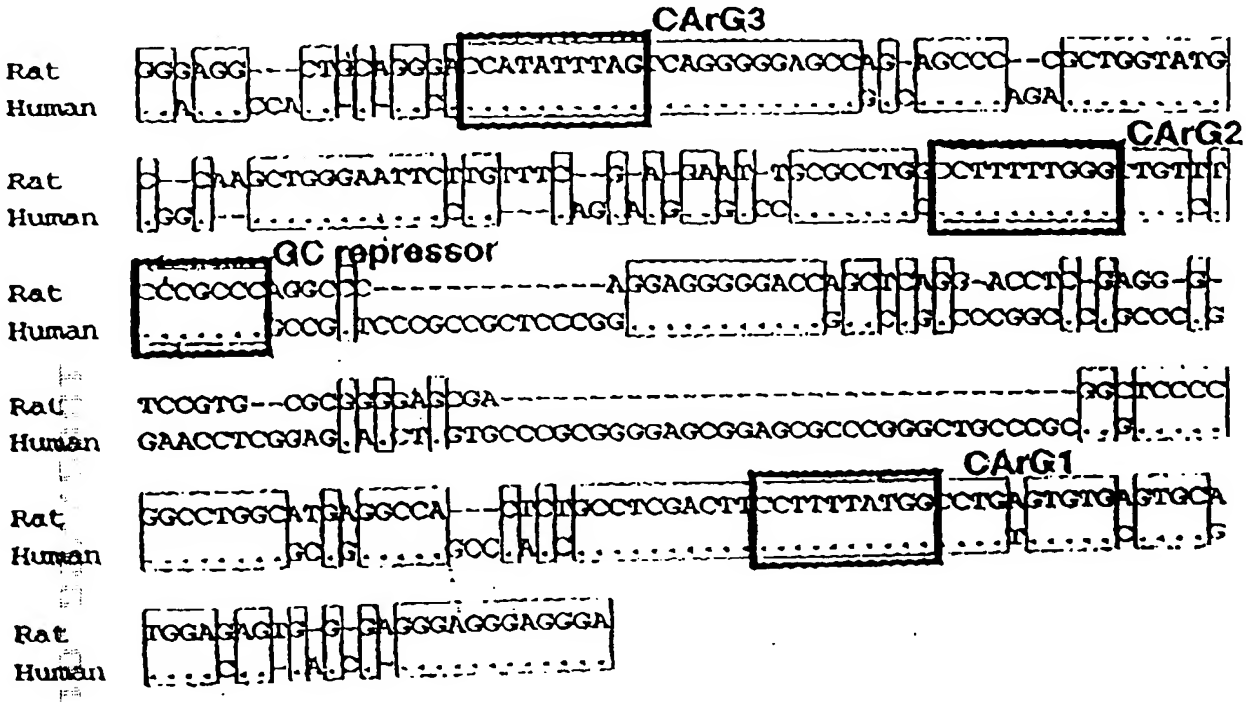


FIG. 11

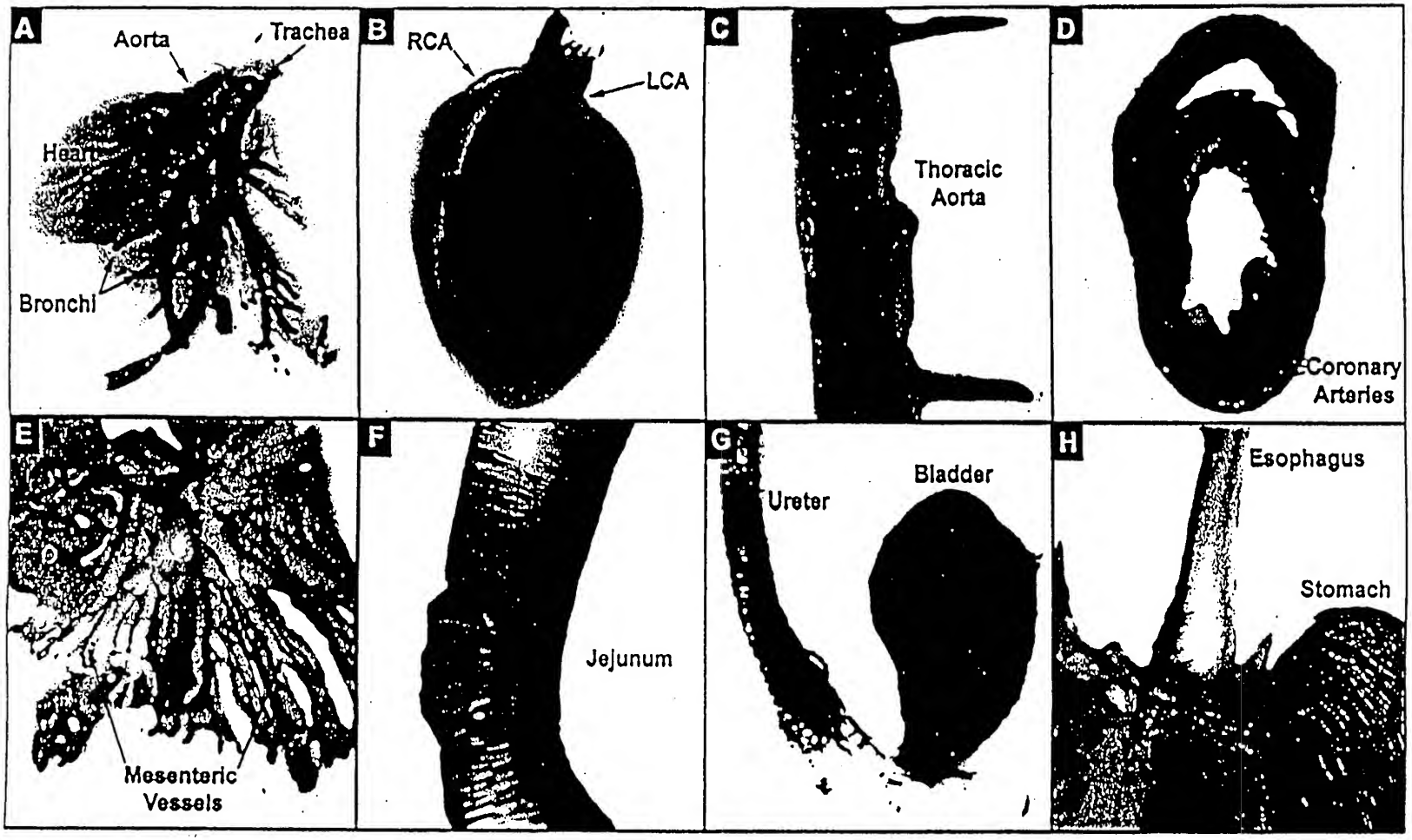

A
Aorta
Trachea
Heart
Bronchi
B
RCA
LCA
C
Thoracic
Aorta
D
Coronary
Arteries
E
Mesenteric
Vessels
F
Jejunum
G
Ureter
Bladder
H
Esophagus
Stomach

FIG. 12

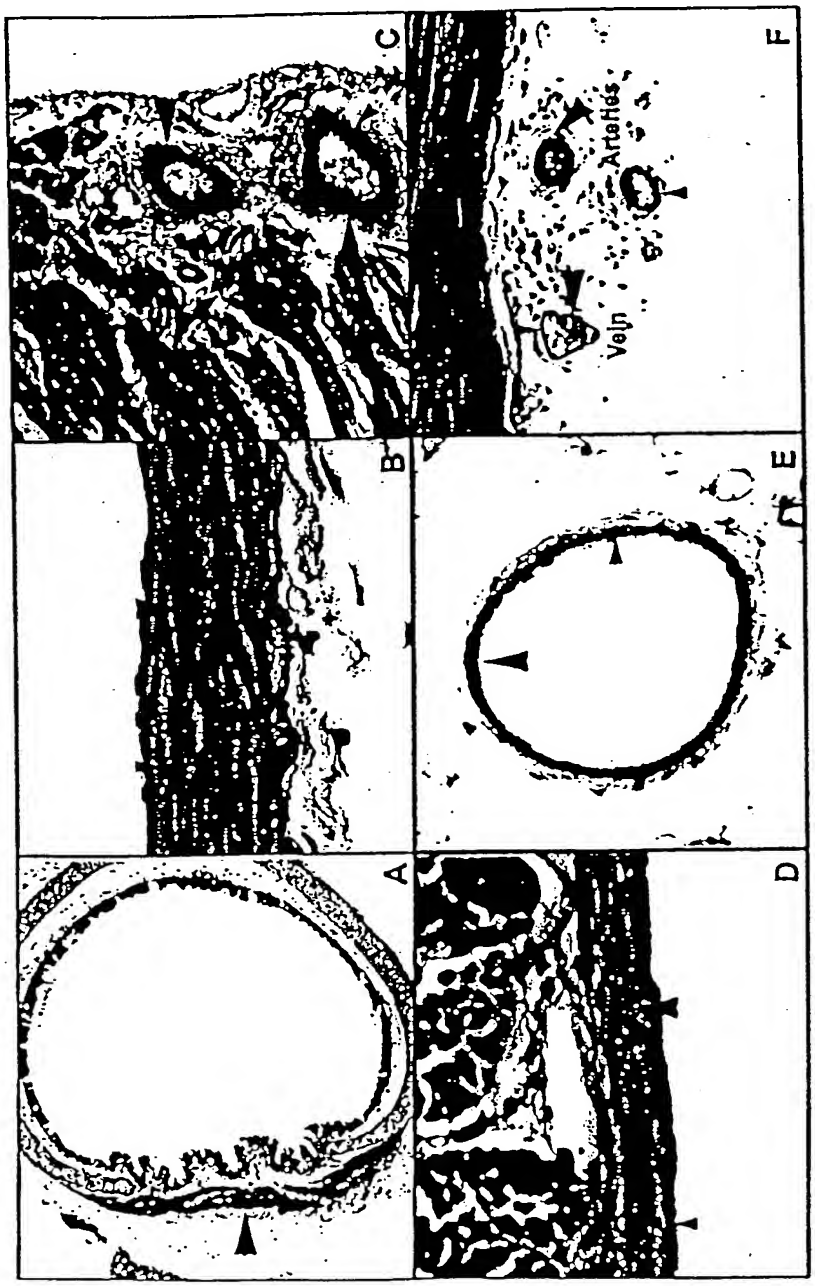


FIG. 13

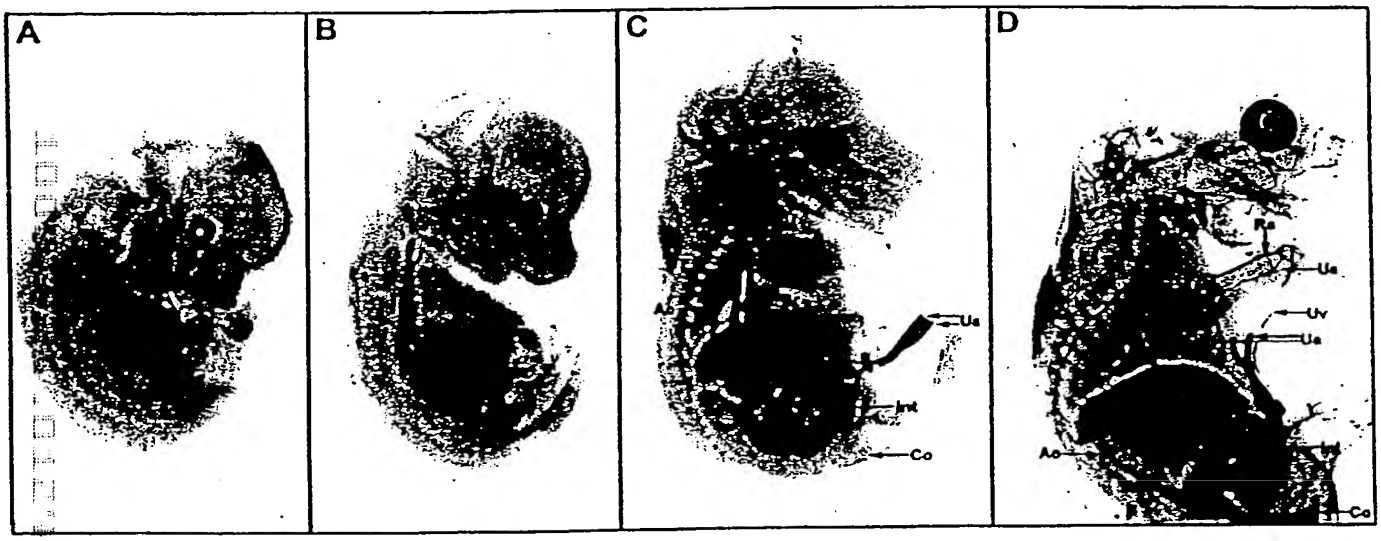


FIG. 14

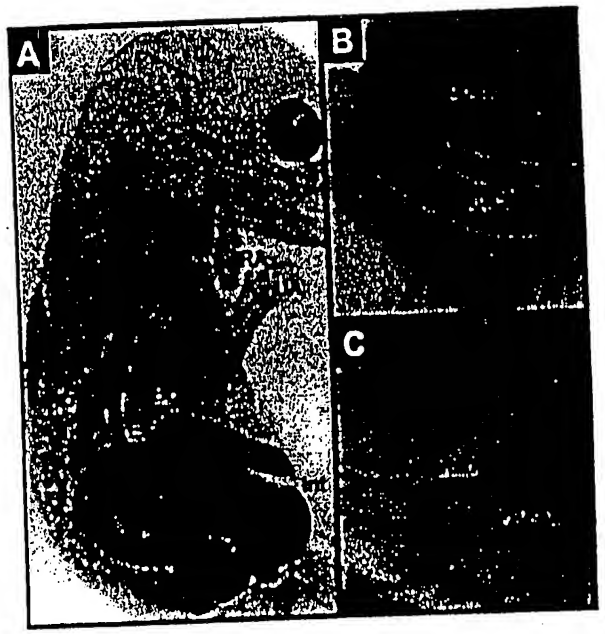


FIG. 15

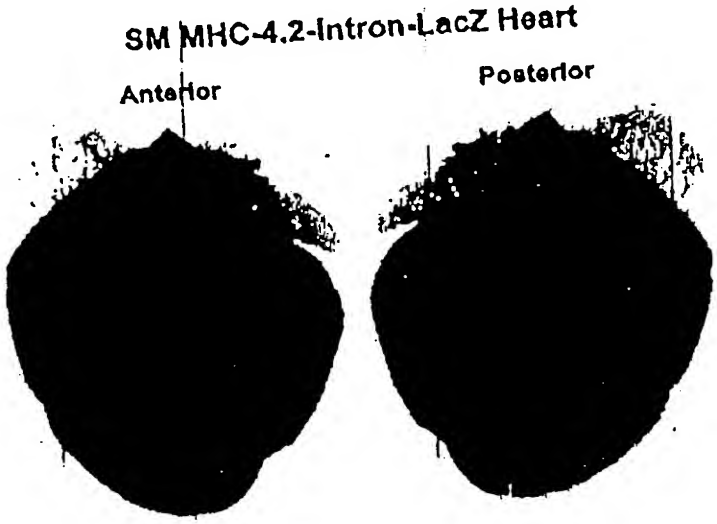


FIG. 16

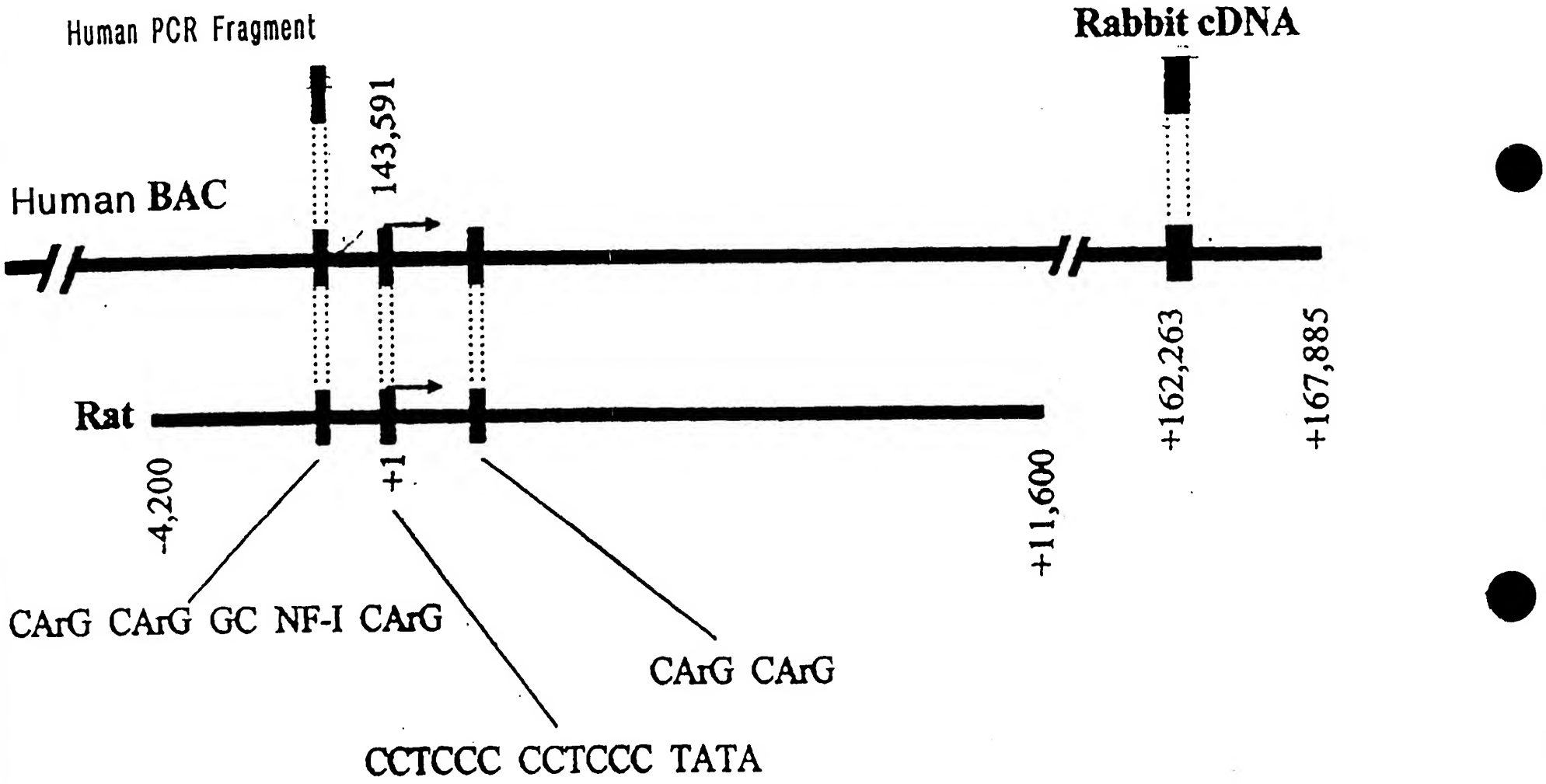
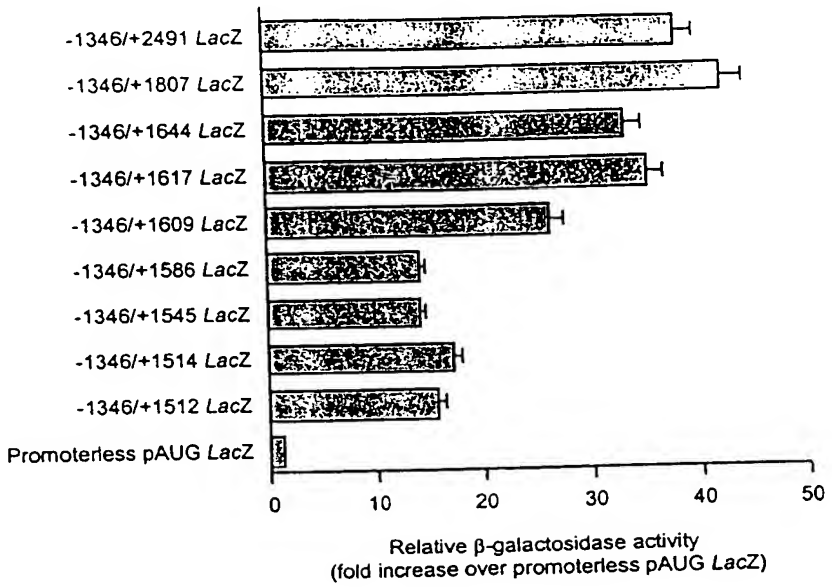

Human PCR Fragment
Rabbit cDNA
143,591
Human BAC
Rat
+162,263
+167,885
-4,200
+1
+11,600
CArG CArG GC NF-I CArG
CArG CArG
CCTCCC CCTCCC TATA

FIG. 17

A



B

```
Rat +1422        GT GGATG   TGGTAGGGTTCCAG   GAG GCTGGCGTGATCTCAAACATGCCTGG
Human +1776   AG--G--C--CCA--CCGA-AG-----AAC-T-AA--A--TG-G---TTTC-GA-AAGCC

Rat +1472     GCCAAGC CACCCTGGAGAAACC TGGACTTTTATTATCAGATCTGAAATAGA  GCCTC
Human +1836   ----G--TTG--T--T-A-A---A--TTT----------TG--C--------TGTGT-A

Rat +1528     TTCCGTACAAGGTAGTCACTATGGAT   TTATCATTACTTTTCTGTGGGA-GGCTGGGC
Human +1896   -------------TCTGT-------TTG---------------C------G---A-A-A

Rat +1584     TGGAGGCAGACATGCCCTTGTATGGTAGTGTTTTCTATGAGGCCATTCCCAGTCCCCCTT
Human +1956   -T------A--------A-T-----A--C------C---------- ---G-C----- -

Rat +1644     GGCCAATCACCCAGCCTTTCGA TGCAG CC   T G ACTGGCTTGAGTTCTGGGTACT
Human +2014   C-T--G-T----------G- -CC----C--GGT-G-TC-----CCT-GGGATTT--CTA
```

FIG. 18

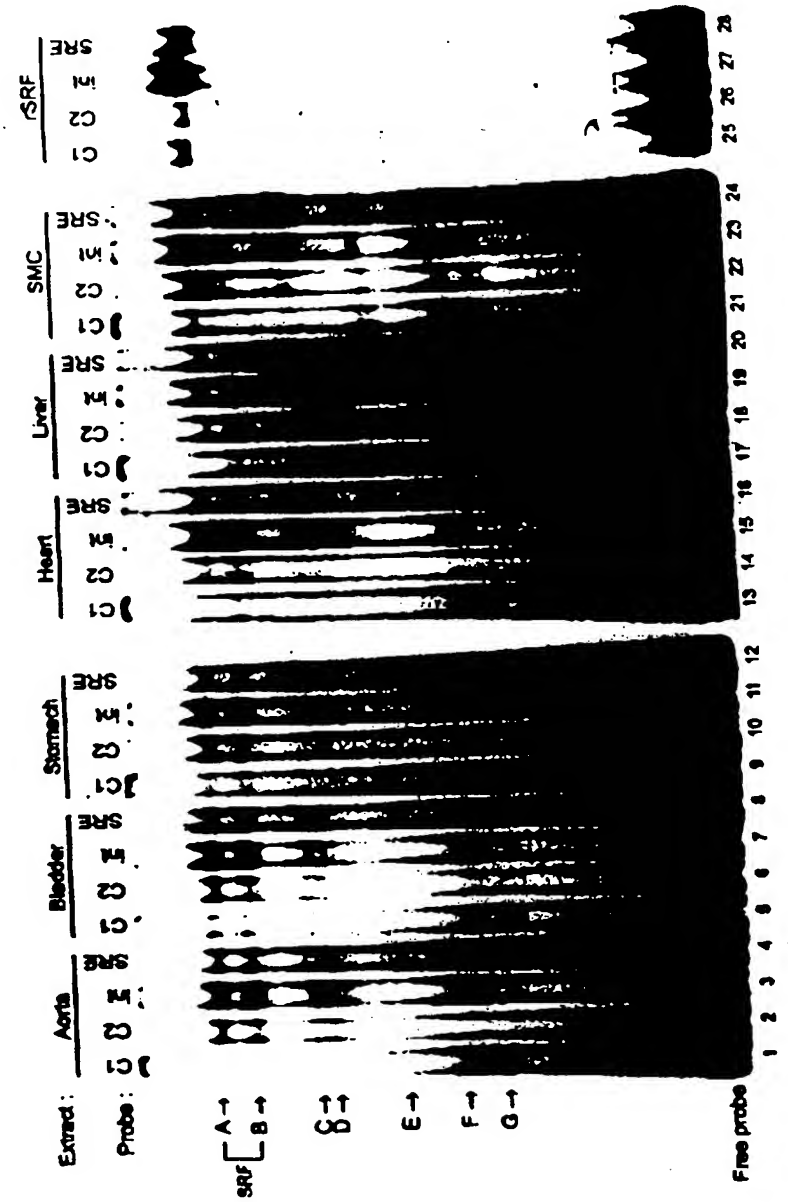

Extract :
Probe :
Aorta
Bladder
Stomach
Heart
Liver
SMC
rSRF
C1
C2
SRE
SRF
A
B
C
D
E
F
G
Free probe
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

FIG. 19

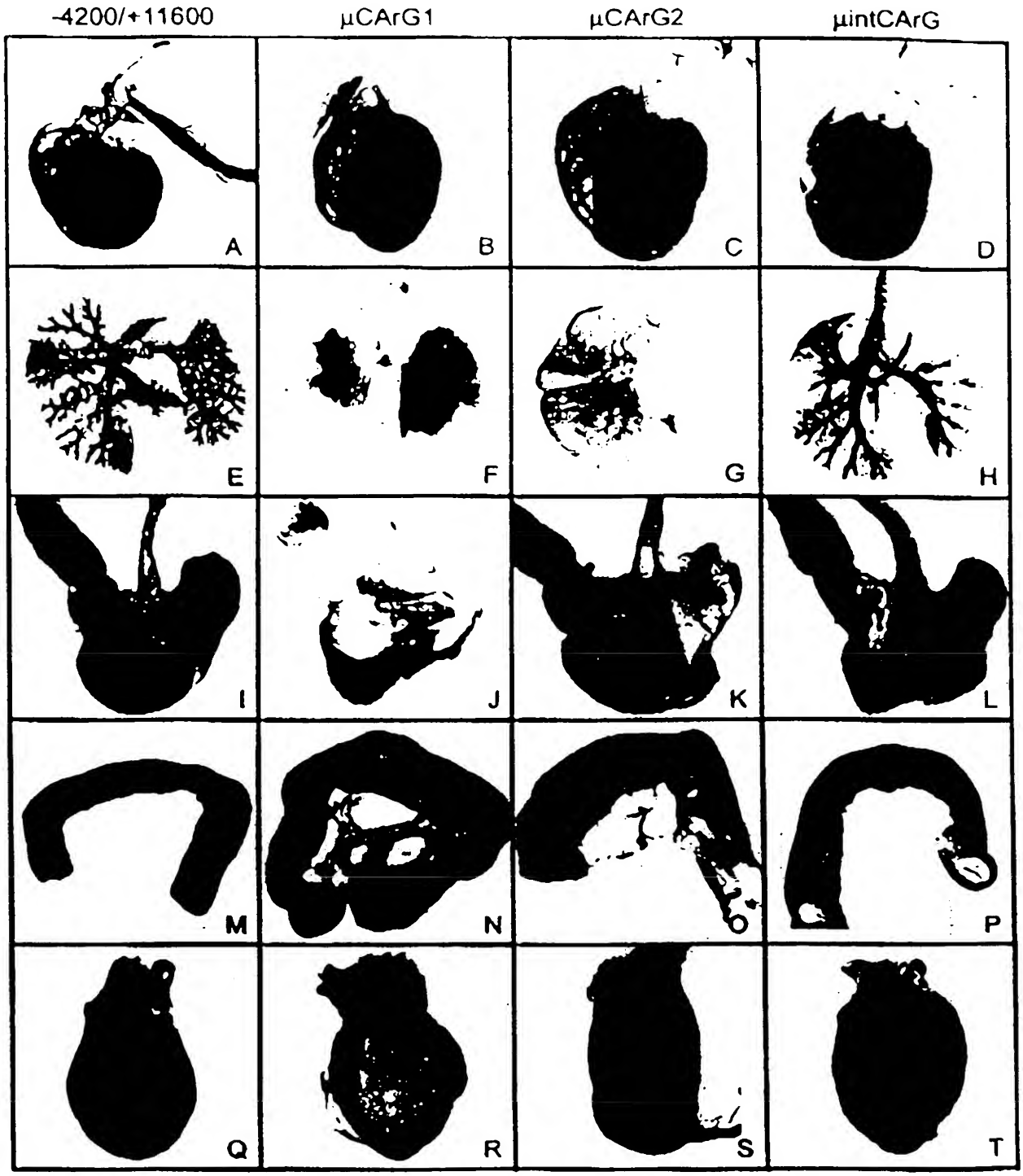


FIG. 20

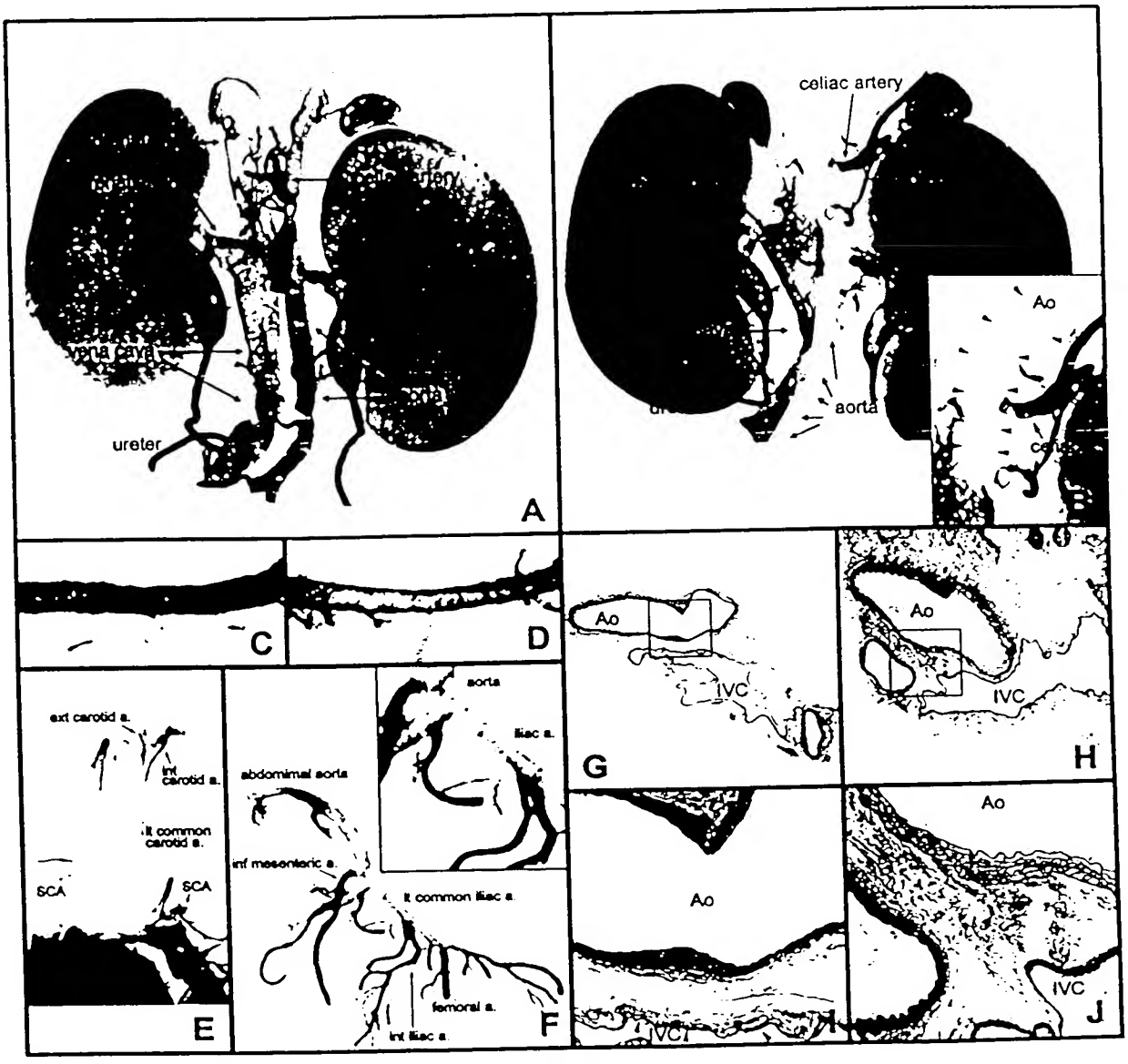

ureter
A
celiac artery
aorta
Ao
C
D
Ao
IVC
G
Ao
IVC
H
ext carotid a.
int carotid a.
lt common carotid a.
SCA
SCA
E
abdominal aorta
inf mesenteric a.
aorta
iliac a.
lt common iliac a.
femoral a.
int iliac a.
F
Ao
IVC
K
Ao
IVC
J

FIG. 21

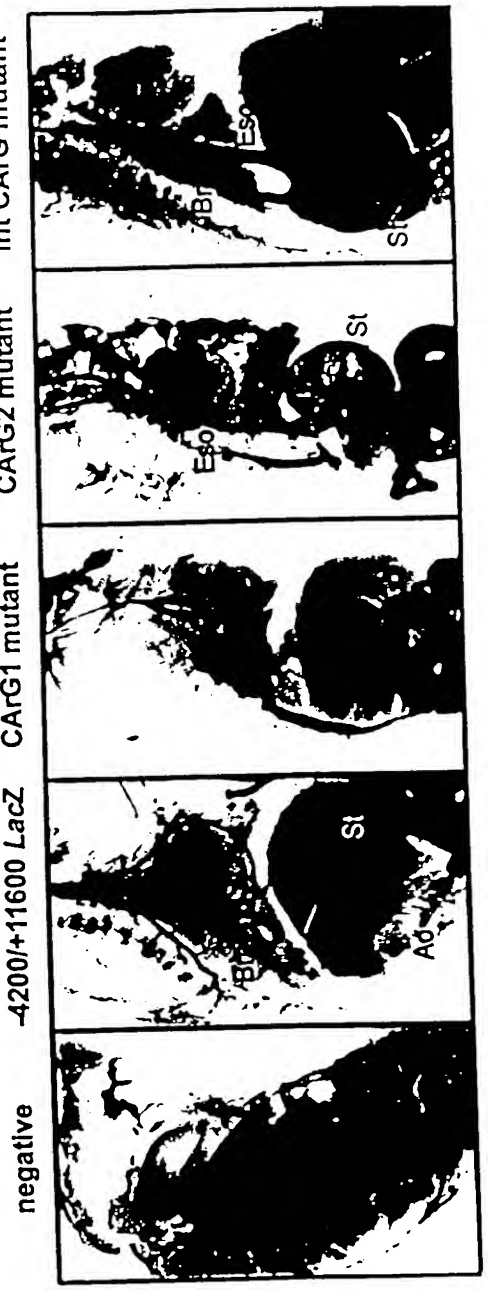

negative
-4200/+11600 LacZ
CArG1 mutant
CArG2 mutant
int CArG mutant
St
Ao
Br
Eso
St
Br
Eso
St

FIG. 22

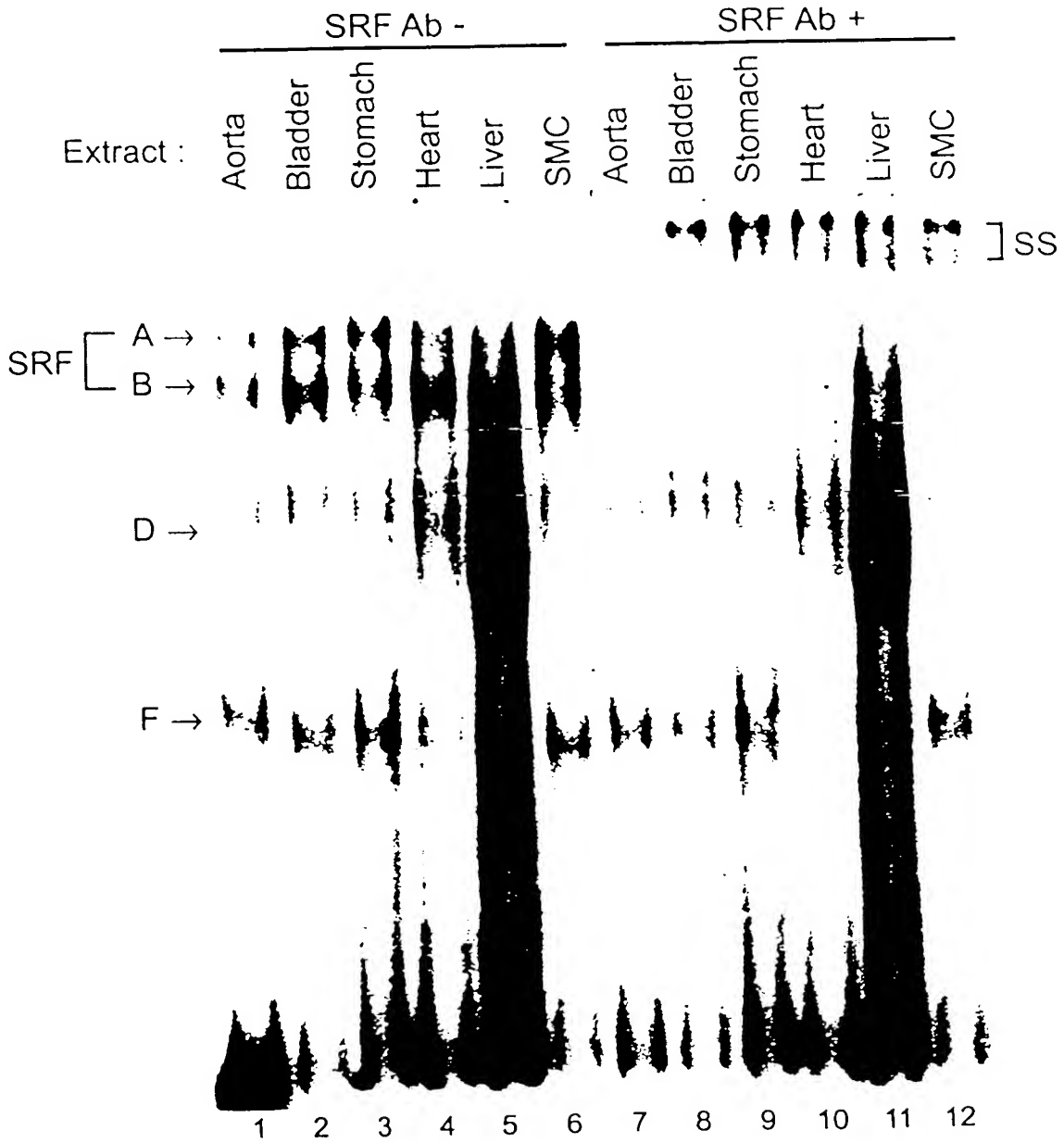

SRF Ab -
SRF Ab +
Extract :
Aorta
Bladder
Stomach
Heart
Liver
SMC
Aorta
Bladder
Stomach
Heart
Liver
SMC
SS
SRF
A →
B →
D →
F →
1 2 3 4 5 6 7 8 9 10 11 12

FIG. 23

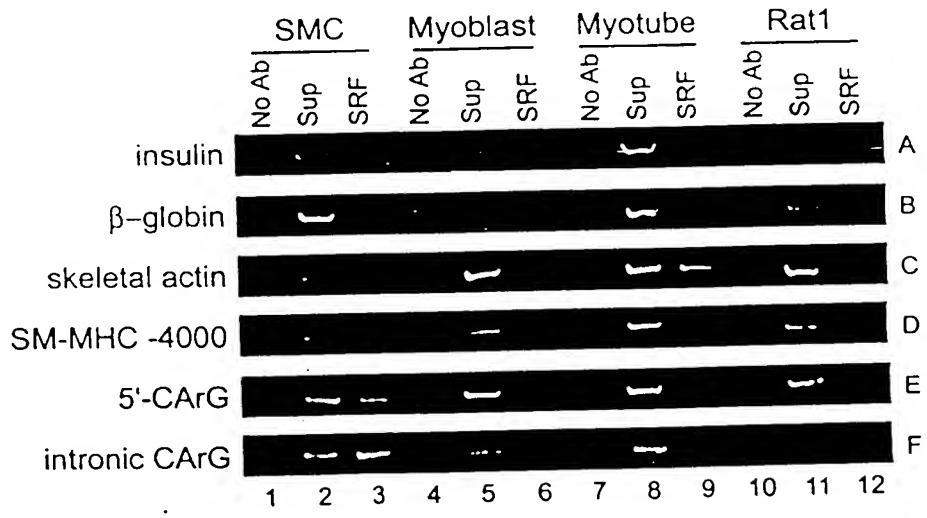

SMC
Myoblast
Myotube
Rat1
No Ab
Sup
SRF
insulin
β–globin
skeletal actin
SM-MHC -4000
5'-CArG
intronic CArG
A
B
C
D
E
F
1 2 3 4 5 6 7 8 9 10 11 12

FIG. 24

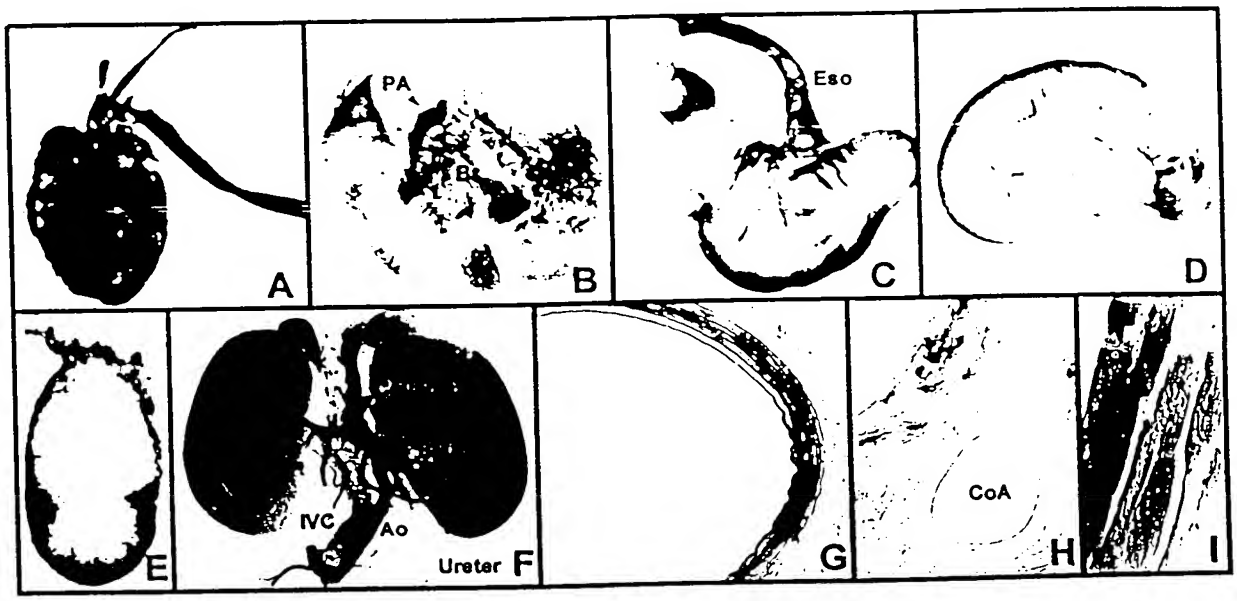


FIG. 25